

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicants : Konrad GROB, et al  
Assignee : Thermoquest Italia, S.p.A.  
USSN : To be assigned  
Filed : Concurrently herewith  
For : METHOD AND DEVICE FOR  
VAPORIZATION INJECTION  
Art Unit: To be assigned

.

Examiner : To be assigned

X

BOX PATENTS  
Assistant Commissioner for Patents  
US Patent & Trademark Office  
Washington DC 20231

Dear Sir:

**PRELIMINARY AMENDMENT**

Prior to examination on the merits, please amend the above referenced Patent Application as follows:

**MAILING CERTIFICATE**

I hereby certify that this correspondence is being deposited with the United States Postal Service as **EXPRESS MAIL LABEL EL781391285US** in an envelope addressed to: BOX PATENT APPLICATIONS, NO FEE - Assistant Commissioner for Patents, Washington, DC 20231 on the date indicated below:

Lourdes Ramos  
Name  
*Lourdes Ramos*  
Signature  
July 3, 2001  
Date

**IN THE CLAIMS:**

Pursuant to 37 CFR § 1.121(c)(1)(i), herein below are a set of clean claims containing all revisions made herein.

Amend claims 4-8, 10-11, 13-14 and 16 as follows:

4. A device according claim 1, characterized in that the internal channel of said needle has a diameter of less than 0.13 mm.
5. A device according to claim 1, in which the upper portion of said vaporization chamber is cooled or unheated.
6. A device according to claim 1, in which the external wall of said needle is covered by a thermal insulating material.
7. A device according to claim 1, in which said needle is completely formed in a thermal insulating polymer.
8. A device according to claim 1, in which the complete length of said vaporization chamber is greater than 10 cm.
10. A device according to claim 1, in which said vaporization chamber is coiled.

11. A device according to claim 1, in which said vaporization chamber is formed in metal.

13. A device according to claim 1, in which a conventional septum or a Merlin valve are able to be alternately mounted on the injector head.

14. A device according to claim 1, characterized in that said vaporization chamber has a restriction in its lower part containing said stop and vaporization means.

16. A device according to claim 1, characterized in that heating means for the vaporization chamber are provided operating at the vaporization temperature of the sample in correspondence to said restriction, and at a lower temperature in the upper part of the chamber.

R E M A R K S

Claim	Status	Dependency
1	Unchanged	Independent
2	Unchanged	1
3	Unchanged	1
4	Amended herein	1
5	Amended herein	1
6	Amended herein	1

<b>Claim</b>	<b>Status</b>	<b>Dependency</b>
7	Amended herein	1
8	Amended herein	1
9	Unchanged	8
10	Amended herein	1
11	Amended herein	1
12	Unchanged	11
13	Amended herein	1
14	Amended herein	1
15	Unchanged	14
16	Amended herein	1
17	Unchanged	Independent
18	Unchanged	17

Claims 4-8, 10-11, 13-14 and 16 have been amended to cancel multiple dependencies.

Respectfully submitted,

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**MARKED-UP VERSION OF AMENDED CLAIMS**  
**PURSUANT TO 37 CFR § 1.121(c)(1)(ii)**

Amend claims 4-8, 10-11, 13-14 and 16 as follows:

4. A device according claim 1 [to one of the preceding claims], characterized in that the internal channel of said needle has a diameter of less than 0.13 mm.
  
5. A device according to claim 1, [3 or 4,] in which the upper portion of said vaporization chamber is cooled or unheated.
  
6. A device according to [one of the claims 1 to 5] claim 1, in which the external wall of said needle is covered by a thermal insulating material.
  
7. A device according to [one of the claims 1 to 5] claim 1, in which said needle is completely formed in a thermal insulating polymer.
  
8. A device according to [one of the claims 1 to 7] claim 1, in which the complete length of said vaporization chamber is greater than 10 cm.
  
10. A device according to [one of the previous claims] claim 1, in which said vaporization chamber is coiled.

11. A device according to [one of the previous claims] claim 1, in which said vaporization chamber is formed in metal.

13. A device according to [one of the preceding claims] claim 1, in which a conventional septum or a Merlin valve are able to be alternately mounted on the injector head.

14. A device according to [one or more of the preceding claims] claim 1, characterized in that said vaporization chamber has a restriction in its lower part containing said stop and vaporization means.

16. A device according to claim [13 or 15] 1, characterized in that heating means for the vaporization chamber are provided operating at the vaporization temperature of the sample in correspondence to said restriction, and at a lower temperature in the upper part of the chamber.

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